We claim:

1. A process for the production of a yeast having an enhanced astaxanthin content, comprising culturing in a nutrient medium containing an antibiotic, cytochrome B inhibitor, or a terpenoid synthetic pathway inhibitor a microorganism of genus Phaffia.

2. A process as set forth in claim 1, wherein the antibiotic is selected from the group consisting of antimycin, tunicamycin, and nystatin.

3. A process as set forth in claim 1, wherein said cytochrome B inhibitor is selected from the group consisting of antimycin and 2-n-heptyl-4-hydroxy-quinoline-N-oxide.

4. A process as in claim 1, wherein the terpenoid synthetic pathway inhibitor is mevalonic acid lactone.

5. A process as set forth in claim 1, wherein the antibiotic or terpenoid synthetic pathway inhibitor concentration in the medium is between 1 and 100 μM.

6. A process as in claim 1, wherein the antibiotic or terpenoid synthetic pathway inhibitor concentration in the medium is between 30 and 80 μM.

7. A process as in claim 1, wherein the microorganism of genus Phaffia is subject to mutagenesis either before, after, or before and after morphological selection.

8. A process as in claim 1, employing as said yeast P. rhodozyma ATCC 24230 or ATCC 24202.

9. A process as in claim 1, wherein the astaxanthin in harvested yeast is 1000 ppm or more based on dry weight of yeast cells.

10. A yeast having the identifying characteristics of Phaffia, said yeast having been obtained by at least one step of morphological selection of naturally occurring Phaffia or of a mutant of naturally occurring Phaffia cultured using a medium containing an antibiotic selection agent or a terpenoid synthetic pathway inhibitor.

11. A yeast as in claim 10, further characterized by increased sensitivity to antimycin.

12. A yeast as in claim 10, further characterized by increased sensitivity to thenoyltrifluoroacetone.

13. A yeast as in claim 10, further characterized in lacking the ability to grow on ethanol.

14. A process for increasing the pigmentation of the flesh of salmonids which comprises feeding said salmonids a yeast of claim 10 in disrupted form in sufficient amount to increase the pigmentation of said salmonids.

15. The process of claim 14, wherein said salmonid is salmon.

16. The process of claim 14 wherein said salmonid is trout.

17. A food supplement comprising the yeast of claim 10 in disrupted form.

18. A process for in vivo production of astaxanthin, comprising culturing one or more times in a nutrient medium containing an antibiotic, a cytochrome B inhibitor, or a terpenoid synthetic pathway inhibitor a microorganism of genus Phaffia, cultivating surviving microorganisms exhibiting enhanced pigmentation, harvesting the cultivated yeast, and extracting the astaxanthin.

19. A process as in claim 17, further comprising subjecting said microorganism of genus Phaffia to at least one mutation either before or after one of said culturings in said nutrient medium containing an antibiotic, cytochrome B inhibitor, or terpenoid synthetic pathway inhibitor.

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